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Claims

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1. A method to provide additional bandwidth for a wireless ad hoc network operating in a certain communication channel with a certain amount of available bandwidth comprising a plurality of wireless terminals; **characterized in that**

- said wireless ad hoc network is split up such that at least one new wireless ad hoc network is spawned, if more bandwidth than said certain amount of available bandwidth is required by said plurality of wireless terminals,

- wherein after the split of said wireless ad hoc network at least one wireless terminal of said wireless ad hoc network and/or one or more new wireless terminals belong(s) to said at least one new wireless ad hoc network, and

- said at least one new wireless ad hoc network is operating in a respective different communication channel,

- wherein the decision which of said wireless terminals of said wireless ad hoc network and/or which of said at least one wireless terminal are moved to said at least one new wireless ad hoc network is based on certain separation criteria,

- which certain separation criteria assure that wireless terminals that

- have the same convergence layers, and/or
- are of the same application layer, and/or
- have the same connection, and/or
- provide the same or corresponding functions

are not separated into different wireless ad hoc networks.

2. The method according to claim 1, **characterized in that**

said wireless ad hoc network and the splitting of said wireless ad hoc network are controlled by a central controller of said wireless ad hoc network that decides which wireless terminals of said wireless ad hoc network and/or which new wireless terminals are moved to said at least one new wireless ad hoc network,

wherein the decision is based on said certain separation criteria, and said central controller determines a new central controller for said at least one new wireless ad hoc network.

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- 1 3. The method according to claim 1 or 2, **characterized in that**
 said wireless ad hoc network and said at least one new wireless ad
 hoc network are operated according to the IEEE802.11 or ETSI BRAN HI-
 PERLAN/2 standard.
- 5 4. The method according to anyone of the preceding claims, **characte-**
 rized in that
 said certain separation criteria assure that wireless terminals with
 certain connections that should not be interrupted are not moved to said
10 at least one new wireless ad hoc network.
5. The method according to anyone of the preceding claims, **characte-**
 rized by
 providing new commands in order to spawn said at least one new wi-
15 reless ad hoc network,
 wherein a requesting command (SPAWN_NETWORK) is sent to a re-
 quest wireless terminal to ask this request wireless terminal to move to
 said at least one new ad hoc wireless network,
 and a confirmation command (SPAWN_NETWORK_ACK) is used by a
20 request wireless terminal to signal that it can move to said at least one
 new ad hoc wireless network.
6. The method according to claim 5, **characterized in that**
 a wireless terminal stops using its entire wireless connections the
25 moment it sent out said confirmation command (SPAWN_NETWORK_ACK),
 moves to one of said at least one new wireless ad hoc network,
 waits until it receives a start command (RLC_CC_START_OPERA-
 TION) sent out by a central controller, and
 then starts using its wireless connections according to the informa-
30 tion provided by said start command (RLC_CC_START_OPERATION).
7. A wireless terminal of a wireless ad hoc network controlled by a cen-
 tral controller of said wireless ad hoc network **characterized by**
 a receiving means adapted to receive a requesting command
35 (SPAWN_NETWORK) from the central controller indicating certain opera-
 ting conditions for the wireless terminal,
 a condition checking means to check if the wireless terminal can be

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1 operated under said certain conditions, and

a sending means that sends out a confirmation command (SPAWN_NETWORK_ACK), if the condition checking means determines that the wireless terminal can be operated under said certain conditions.

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8. The wireless terminal according to claim 7, **characterized in that** said certain conditions define

if said wireless terminal can operate as a central controller of a wireless ad hoc network,

10 a certain communication channel at which said wireless terminal is able to operate, and/or

a moment in time at which said wireless terminal shall operate in said certain communication channel and at which it may be controlled by a different central controller.

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9. A central controller of a wireless ad hoc network comprising a plurality of wireless terminals, **characterized by**

a splitting means that controls the splitting of said wireless ad hoc network, wherein a new wireless ad hoc network is spawned that comprises at least one of said plurality of wireless terminals and/or one or more new wireless terminals.

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10. The central controller according to claim 10, **characterized in that** the splitting means comprises

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a sending means that sends out requesting commands (SPAWN_NETWORK) to wireless terminals,

a receiving means that receives confirmation commands (SPAWN_NETWORK_ACK), and

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an operating means that decides which of said plurality of wireless terminals and/or of said new wireless terminals may be moved to said new wireless ad hoc network and determines a wireless terminal of said plurality of wireless terminals and/or of said new wireless terminals that becomes the central controller of said new wireless ad hoc network.

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11. A wireless ad hoc network comprising

a plurality of wireless terminals according to claim 7 or 8, and
a central controller according to claim 9 or 10.